

### Installation Instructions

For Superior's RD Series Models RD-3300A RD-3800A And RD-4300A This installation manual will enable you to obtain a safe, efficient and dependable installation of your fireplace system. Please read and understand these instructions before beginning your installation.

Do not alter or modify the fireplace or its components under any circumstances. Any modification or alteration of the fireplace system, including but not limited to the fireplace, chimney components and accessories, may void the warranty, listings and approvals of this system and could result in an unsafe and potentially dangerous installation.

PLEASE RETAIN THIS MANUAL FOR FUTURE REFERENCE.





# IMPORTANT! PLEASE READ AND UNDERSTAND THESE RULES TO FOLLOW FOR SAFETY

- Before starting your fireplace installation, read these installation instructions carefully to be sure you understand them completely and in their entirety. Failure to follow them could cause a fireplace malfunction resulting in serious injury and/or property damage,
- Always check your local building codes. The installation must comply with all local, regional, state and national codes and regulations.
- 3. Superior Models RD-3300A and RD-3800A must be installed with the Model TF8 [8\* (203mm) inside diameter] Thru-Flow Chimney System only. Superior Model RD-4300A fireplace must be installed with either Superior Model TF8 [8\* (203mm) inside diameter] or Model TF10 [10\* (250mm) inside diameter] Thru-Flow Chimney System. These systems are intended for use as residential-type appliances. The chimney system must always vent to the outside of the building.
- 4. To ensure a safe fireplace system and to prevent the build-up of soot and creosote, inspect and clean the fireplace and chimney prior to use and periodically during the heating season.
- Use solid wood fuel only. DO NOT use treated wood, artificial logs, driftwood, woods containing binders, chemical chimney cleaners or flame colorants in your fireplace.
- 6. DO NOT use charcoal or coal under any circumstances
- 7. NEVER use gasoline, gasoline-type lantern fuel, kerosene, charcoal lighter fluid, or similar liquids to start or "freshen up" a fire in this fireplace. Keep any flammable liquids a safe distance from the fireplace.
- 8. NEVER leave children unattended when there is a fire burning in the fireplace.
- Always keep flue damper open when heat is present in the fireplace.
- 10. Before servicing, allow the fireplace to cool. Always shut off any electricity or gas to the fireplace while working on it. This will prevent any possible electrical shock or burns.
- 11. This fireplace is not intended to heat an entire home or be used as a primary heat source. It is designed to ensure homeowner comfort by providing supplemental heat to the room.

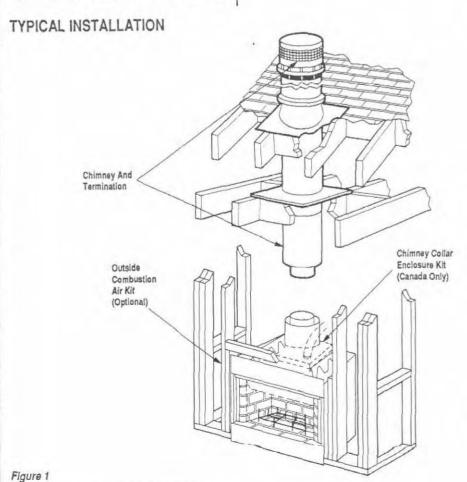
- 12. Always ensure an adequate supply of replacement combustion air from the outside of the house is accessible to the fire to support normal combustion. Fireplaces consume large volumes of air during the normal combustion process, in the event the home is tightly sealed with modern energy-efficient features, Superior's optional combustion air kit may not provide all the air required to support combustion. Superior is not responsible for any smoking or related problems that may result from the lack of adequate combustion air. It is the responsibility of the builder/contractor to ensure that adequate combustion air has been provided for the fireplace.
- 13. DO NOT use a fireplace insert or any other products not specified by Superior herein for use with this fireplace.
- 14. Superior Fireplace Company does not warranty "smoke free" operation nor are we responsible for inadequate system draft caused by mechanical systems, general construction conditions, inadequate chimney heights, adverse wind conditions and/or unusual environmental factors or conditions beyond our control.
- 15. Never, under any circumstances, install a fireplace, chimney component or any accessories supplied by Superior Fireplace Company that have

visible or suspected physical damage as a result of handling or transportation. These items should be inspected by a Superior distributor or qualified factory representative to ensure safe condition. When in doubt, consult your Superior distributor.

## TOOLS AND BUILDING SUPPLIES NORMALLY REQUIRED

Tools should include:
Phillips screwdriver
Hammer
Saw and/or sabersaw
Level
Measuring tape
Plumb line
Electric drill and bits
Pliers
Square

Building supplies:
Framing materials
Wall-finishing materials
Caulking materials
(non-combustible)
Fireplace surround and
hearth extension materials
(non-combustible)



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### **PRECAUTIONS**

Note: These fireplace systems are not difficult to install. However, in the interest of safety, it is recommended that the installer be a qualified or certified "tradesman" familiar with commonly accepted fireplace installation and safety techniques as well as prevailing local codes.

The most important areas of concern dealing with the installation of factory-built fireplaces are clearances to combustible materials, proper assembly of component parts, height of the chimney system, the proper use of accessories supplied by Superior and the techniques employed in using finishing materials applied to the wall surrounding the fireplace, hearth extensions and wall shields. Each of these topics will be covered in thorough detail throughout this manual. Please give each your special attention as you progress with your installation.

IMPORTANT: WHEN INSTALLING THESE FIRE-PLACE SYSTEMS IN CANADA, THE REQUIRED MINIMUM AIR SPACE TO COMBUSTIBLE MATERIALS FROM THE CHIMNEY IS 2" (51 MM). THE CHIMNEY COLLAR ENCLOSURE KIT, MODEL CCEK, MUST BE INSTALLED PER THE WARNOCK HERSEY INTERNATIONAL, INC. LISTING. THIS IS NOT A U.L. LISTED INSTALLATION.

WHEN INSTALLING SUPERIOR'S TF8 SERIES CHIMNEY SYSTEM ON MODEL RD-4300A IN CANADA OR THE U.S., THE MINIMUM AIR SPACE TO COMBUSTIBLES FOR THE CHIMNEY SYSTEM IS 2" (51MM).

### INTRODUCTION General Information

The RD-A Series is a radiant, wood-burning fireplace system. A steel bar grate is also included with all models to properly position the fire. An outside combustion air kit, Model AK-4A, and decorative glass doors are available as optional equipment.

Note: Illustrations shown reflect "typical" installations with nominal dimensions and are for design and framing reference only. Actual installations may vary due to individual design preferences. However, always maintain minimum clearances to combustible materials and do not violate any specific installation requirements.

The RD-A Series fireplaces have been tested and listed by Underwriters Laboratories, Inc. and WarnockHersey International, Inc. to U.L. 127 standard for U.S. installations and U.L.C. S610 standard for Canadian installations. These units are intended for installation in residential homes and buildings of conventional construction, not in mobile homes.

These fireplace systems are designed for installation in accordance with the National Fire Protection Standard for chimneys, fireplaces and solid fuel-burning appliances; NFPA 211 and in accordance with codes such as the BOCA Basic/National Codes, the Standard Mechanical Code, Uniform Building Codes and the Canadian National Code.

FAILURE TO USE PARTS MANUFACTURED BY SUPERIOR FIREPLACE COMPANY, VARIATIONS INTECHNIQUES AND CONSTRUCTION MATERIALS OR PRACTICES DESCRIBED IN THIS MANUAL MAY CREATE A FIRE HAZARD AND VOID SUPERIOR'S LIMITED WARRANTY.

The RD-A system consists of five basic "sub-systems":

- 1. The Fireplace
- 2. The Chimney and Termination
- 3. Optional Glass Doors
- 4. The Optional Combustion Air Kit
- 5. Chimney Collar Enclosure Kit (Canada Only)

### CLEARANCES AND HEIGHT REQUIREMENTS

The fireplace may be placed on or near normal construction materials\*. The combustion air kit, firestop spacer and roof flashing (not chase flashing) may be placed directly on or against normal construction materials.\* The chimney requires a minimum 1\* (25mm)\*\* (See \*\*Note) air space to combustibles. A combustible mantle may be installed 12\* above the opening of the fireplace as per NFPA 211, Section 7-3.3.3. In Canada the minimum is 18\* (457mm) above the opening.

The fireplace and chimney system must be enclosed when installed in or passing through a living area where combustibles or people may come in contact with it. This is important to prevent possible personal injury or fire hazard.

- \*Construction Materials:
- framing materials
- · plywood
- · particle board
- · flooring
- · millboard
- · dry wall
- paneling
  etc.

For questions, please call your distributor or Superior Fireplace Company. Special restrictions apply to the front and facing of the fireplace and nearby walls (See pages 15, 16 and 17).

\*\*Note: 2" (51mm) when installing in Canada and 2" when installing TF8 chimney on Model RD-4300A.

NOTE: DIAGRAMS & ILLUSTRATIONS NOT TO SCALE

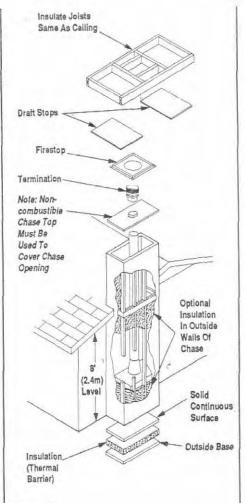


Figure 2

WARNING: IF INSULATION IS USED, THE FIRE-PLACE MUST NOT BE PLACED DIRECTLY AGAINST IT. INSULATION OR VAPOR BARRI-ERS, IF USED, MUST FIRST BE COVERED WITH GYPSUM BOARD, PLYWOOD, PARTICLE BOARD, OTHER MATERIAL OR OTHER METH-ODS TO ASSURE INSULATION AND VAPOR BARRIERS REMAIN IN PLACE.

WARNING: DO NOT PACK OR FILL REQUIRED AIR SPACES WITH INSULATION OR OTHER MATERIAL. NO MATERIAL OF ANY KIND ALLOWED IN THESE AREAS.

#### Notes:

- Do Not Insulate The Chase Cavity With Blown
  Or Fill-Type Insulation Materials.
- Local Codes May Not Require Firestopping At The Ceiling Levels For Outside Chase Installations; However, It is Recommended For Safety And The Reduction Of Heat Loss.

### CHIMNEY SYSTEM

Superior-manufactured fireplace Models RD-3300A and RD-3800A are designed and code-listed for use with Superior's TF8 Thru-Flow Chimney System. Model RD-4300A is designed and code-listed for use with Superior's TF8 and TF10 Thru-Flow Chimney Systems. Always use Superior's Thru-Flow chimney components with these fireplaces. Do not modify or alter these components as this may cause a potential serious hazard and void Superior's Limited Warranty.

#### CHIMNEY HEIGHT

The total height of your RD-A Series fireplace system from the surface the fireplace rests on to the chimney top must not exceed 80' (24,38m) and must also meet minimum height requirements. Refer to the minimum system height chart.

#### MINIMUM SYSTEM HEIGHT

Opening	33"/38"	43"	43"
Width	(TF8)	(TF8)	(TF10)
Vertical	12'0"	16'8"	15'0"
Installation	(3.67m)	(5.98m)	(4.57m)
One	12'0"	16'8"	15'0*
Offset	(3.67m)	(5.98m)	(4.57m)
Two	25'0"	25'0"	25'0°
Offsets	(7.62m)	(7.62m)	(7.62m)

### CHASE ENCLOSURE

A chase is a vertical box-like structure constructed to surround the fireplace and chimney. Refer to Figure 2 for a typical chase configuration. As with all chimney installations, avoid overhead obstructions such as trees, power lines, etc. A chase should be constructed and insulated just like any outside wall. In a cold climate, we recommend the base of the chase should also be insulated between the solid continuous floor beneath the fireplace and the chase bottom. The value and amount of chase insulation in a cold climate installation (if used) is optional and not required for safety.

### ASSEMBLY OUTLINE Before You Start

Check your inventory list to be sure you have all the necessary parts supplied in good useable condition. Check also for any concealed damage.

The flue damper handle extends down from the inside top of the fireplace. Pull forward to open. The lintel extension is attached to the damper handle and will be visible if the damper is open. Push the damper handle back and up to close until you hear the damper lock closed. If the damper is not locked, it will fall open and the lintel extension will be visible again (Figure 3).

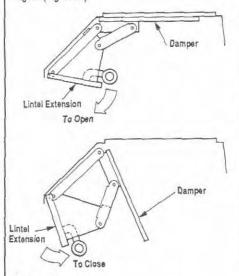
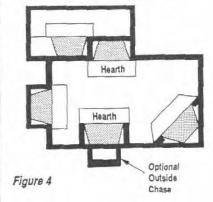


Figure 3

#### LOCATION OF FIREPLACE

Carefully select the proper location for heat circulation, aesthetics, chimney obstructions and clearance to side wall(s). With proper pre-planning, a slight adjustment of a few inches can save considerable time and expense later during construction and assembly.

Carefully consider the position of the fireplace opening with respect to the location of adjacent or nearby stairwells, bath or kitchen exhaust fans and/ or return air registers for forced air furnaces/air conditioners that could cause a smoking fireplace condition if the house is tightly insulated.



If there is a continuous perpendicular side wall closer than 15" (381mm) for the RD-3300A or RD-3800A and 18" (457mm) for the RD-4300A from the nearest side of the fireplace opening, it must be protected with a metal wall shield, Model WS40, manufactured by Superior or one constructed of 40" x 40" x 1/2" (1016 mm x 1016mm x 13mm) millboard or a durable non-combustible material with equal or greater insulating value (see page 16). A continuous perpendicular side wall cannot be closer than 8" (203mm) from the fireplace opening under any circumstances, even if protected.

### ASSEMBLY STEPS

Note: The following steps represent the normal sequence of installation. Each installation is unique, however, and might require a different sequence.

- Position firebox prior to framing or into prepared framing.
- 2. Install the chimney system.
- 3. Install optional outside combustion air kit.
- Plumb gas line if a decorative gas appliance will be used. (Gas connections should only be performed by an experienced, licensed/certified tradesman.)
- 5. Complete finish wall material, surround and hearth extension to your individual taste.
- 6. Assemble and attach optional glass door assembly.

Study the three dimensional illustration (Figure 1) to get a general idea of each element of your fireplace system.

### INSTALLING THE FIREPLACE

The fireplace may be installed directly on a combustible floor or raised on a platform of an appropriate height. Do not place fireplace on carpeting, vinyl or other soft floor coverings. It may, however, be placed on flat wood, plywood, particle board or other hard surfaces. Be sure fireplace rests on a solid continuous floor or platform with appropriate framing for support and so that no cold air can enter room from under the fireplace.

The fireplace may be positioned and then the framing built around it, or the framing may be constructed and the fireplace positioned into the opening.

Usually, no special floor support is needed for the fireplace. However, to be certain:

- Estimate the total weight of the fireplace system and surround materials such as brick, stone, etc., to be installed. Shipping weights for the fireplace and chimney may be found in the Suggested List Prices.
- Measure the square footage of the floor space to be occupied by the system, surrounds and hearth extensions.
- 3. Note the floor construction, i.e.,  $2 \times 6$ 's,  $2 \times 8$ 's or  $2 \times 10$ 's (51 x 152mm, 51 x 203mm or 51 x 250mm), single or double joists, type and thickness of floor boards.
- Use this information and consult your local building code to determine if you need additional support.

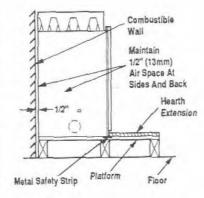
If you plan to raise the fireplace and hearth extension, build the platform assembly, then position fireplace and hearth extension on top. Secure the platform to the floor to prevent possible shifting.

### TO INSTALL:

Step 1. Slide the fireplace into prepared framing or position fireplace in its final position and frame later.

Step 2. Insert the metal safety strips, packaged with the fireplace, beneath the fireplace as illustrated (Figures 5 and 6). The safety strips should overlap for continual coverage of the floor.

Note: Safety strips are not required when fireplace rests on a non-combustible surface.



Combustible
Wall
Maintain
1/2" (13mm)
Air Space At
Sides And Back
Hearth
Extension

Metal Safety Strip
Floor

Figure 6

The safety strips should extend from front and sides of the fireplace 2" (51mm). In the event a wooden support is used to elevate the fireplace above the floor, a "Z" type safety strip should be fabricated and used to protect the front surface of the wood support as well as the floor beneath the hearth extension (Figures 7 and 8). The safety strips should be tacked down to prevent possible movement.

Note: The "Z" type safety strip is not supplied by Superior.

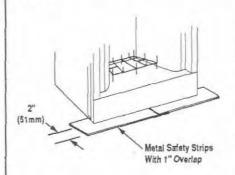
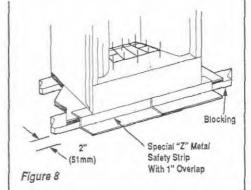


Figure 7

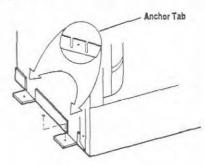


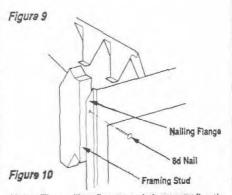
Step 3. Refer to fireplace drawings and specifications on pages 6 and 7 for framing dimensions and details. Framing header may be positioned directly on the fireplace top spacers.

IMPORTANT: UNDER NO CIRCUMSTANCES CAN THE FIREPLACE TOP SPACERS BE REMOVED OR MODIFIED. DO NOT NOTCH THE HEADER TO FIT LOWER THAN THE FIREPLACE TOP SPACERS.

Step 4. Fireplace may be anchored to floor. Bend down four (4) anchor tabs located at the base of the fireplace and secure to the floor by nailing with 8d nails (Figure 9).

Step 5. Fireplace should be secured to side framing members using nailing flanges. Use 8d nails (Figure 10).





Note: The nailing flange and the area directly behind the nailing flange is exempt from the clearances described on the fireplace clearance label.

### FOR CANADIAN INSTALLATIONS, PROCEED WITH STEPS 6-9.

Note: W.H.I. listed only. This is not a U.L. listed installation.

Step 6. Attach the chimney collar enclosure kit, Model CCEK, around chimney collar with the screws provided (Figure 10).

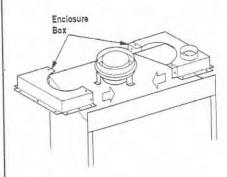


Figure 11

Step 7. Connect the 4" (102mm) Class 1 duct provided to the collar on the chimney collar enclosure with the screws provided in the hardware kit.

Step 8. Route the Class 1 duct out the back wall or side wall, up through the ceiling or floor joists to an outside wall. The duct should be located above snow level.

Note: If the fireplace is installed against an inside wall, the Class 1 duct may be extended into a ventilated attic space at least 18" (457mm) above the attic floor. Secure the duct hood to a vertical post with the inlet positioned downward. Ensure nothing blocks the hood opening. This duct must never terminate higher than the chimney.

Step 9. Cut or frame hole through the outside wall for the installation of the duct inlet hood. A 4 1/2\* (114mm) diameter hole is sufficient. Feed the loose end of the flexible duct through the hole cut for the inlet hood and attach to collar on inlet hood using two (2) screws. Insert hood into opening. Secure in place with nails driven through holes in hood flange. Seal with non-combustible waterproof silicon type caulking. If additional duct is needed, use Class 1 metallic duct.

### INSTALLING THE CHIMNEY SYSTEM

Step 1. Check the flue damper for proper operation. When the damper is in the fully open position, the damper handle will be forward and the lintel extension will be visible. When the damper is fully closed, the damper lever is moved all the way back and the lintel extension is no longer visible.

### FIREPLACE SPECIFICATIONS

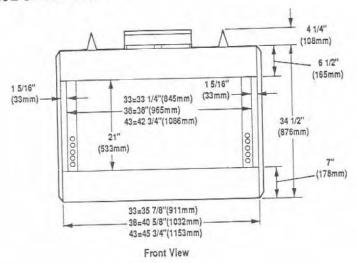
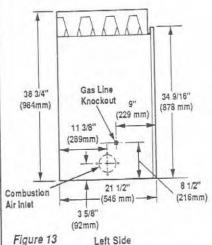
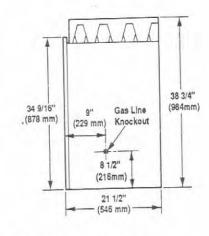


Figure 12 Note: If you will be installing glass doors, refer to page 18 for clearance requirements.





Left Side

Figure 14 Right Side

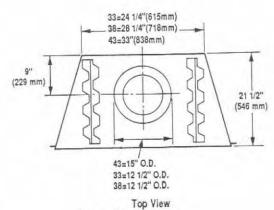
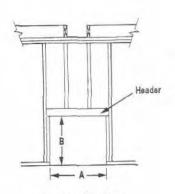


Figure 15

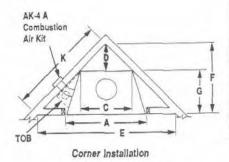
### FRAMING SPECIFICATIONS



Fireplace Framing

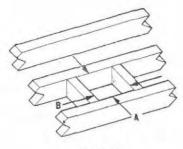
Figure 16

Figure 17



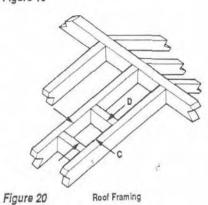
FIREPLACE FRAMING DIMENSIONS

	Fire	place Openir	ng Width
	33"	38"	43"
A	36"	40 3/4"	45 7/8"
	(914mm)	(1035mm)	(1165mm)
В	39"	39"	39"
	(991mm)	(991 m)	(991mm)
С	23 1/2"	28 1/4"	33"
	(597mm)	(718mm)	(838mm)
D	12 1/2*	14 1/2"	17 1/2"
	(318mm)	(368mm)	(465mm)
E	68 * (1727mm)	72" (1829mm)	78" (1981mm)
F	33 7/8"	35 7/8"	38 7/8"
	(861mm)	(911mm)	(988mm)
G	21 3/8"	21 3/8"	21 3/8"
	(543mm)	(543mm)	(543mm)
J	18"	18"	18"
	(457mm)	(457mm)	(457mm)
K	48 *	51 *	55 *
	(1219mm)	(1295mm)	(1397mm)



Ceiling Framing

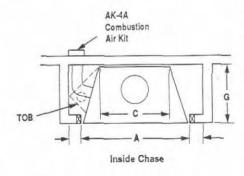
Figure 19



FRAMING DIMENSION FOR CEILING

		ombustion
		ir Kit
	/	1
	7/	1 =
1	1	
G	7 0	7
1		4
1 1000	- c	7 20
-	A	
	Outside Chase	

Figure 18



	Ceiling O	pening
Flue Type	A	В
TF8, Vertical	14 1/2" (368mm)	14 1/2" (368mm)
TF8, Vertical at 2"	16 1/2" (419mm)	16 1/2" (419nn)
TF10, Vertical	17" (432mm)	17" (432mm)
TF10, Vertical at 2"	19" (438mm)	19" (438mm)
TF8 Offset 30°	14 1/2" (368mm)	25" (635mm)
TF8 Offset 30° at 2"	16 1/2" (419mm)	27" (686mm)
TF10 Offset 30°	17" (432mm)	26" (660mm)
TF10 Offset 30° at 2"	19" (438mm)	28" (711mm)

FRAMING DIMENSIONS FOR ROOF

	TF8	at 1"	TF8	at 2"
Pitch	С	D•	С	D*
0/12	14 1/2*	14 1/2"	161/2"	16 1/2"
	(368mm)	(368mm)	(419mm)	(419mm)
6/12	14 1/2*	17"	16 1/2"	19"
	(386mm)	(432mm)	(419mm)	(483mm)
12/12	14 1/2"	21 1/2"	16 1/2"	23 1/2"
	(368mm)	(546mm)	(419mm)	(579mm)
	TF10	at 1"	TF1	0 at 2"
Pitch	С	D*	С	D*
0/12	17"	17"	19"	19"
	(432mm)	(432mm)	(483mm)	(483mm)
6/12	17*	19"	19"	21"
	(432mm)	(483mm)	(483mm)	(533mm)
12/12	17"	24"	19**	26"
	(432mm)	(619mm)	(483mm)	(660mm)

<sup>\*</sup>Perpendicular to roof ridge

Step 2. Using standard construction framing techniques, construct opening for chimney route up through the ceiling(s) and roof or through an outside chase. Framing must maintain adequate minimum air space clearance at all times.

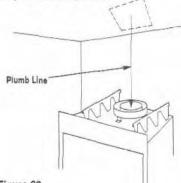
CAUTION: ALLOW MINIMUM 1" (25mm)\*\* (See "Note) CHIMNEY AIR SPACE TO COMBUS-TIBLE FRAMING MEMBERS THROUGHOUT VERTICAL OR OFFSET CHIMNEY INSTALLA-TION.

A minimum 1" (25mm)\*\* (See \*\*Note) air space must be reserved for all materials extending for any continuous length surrounding the chimney.

Reference Figures 20 and 21 and charts Framing Dimensions for Ceiling and Roof, which specify minimum ceiling and roof dimensions.

In new construction, to determine chimney center line, use plumb line from roof or ceiling above fireplace to center of flue collar on fireplace.

For remodeling, plumb to center of flue collar from ceiling above, drive nail through ceiling from below to mark position, then mark and cut to passage from above ceiling (around nail) (Figure 22). Then plumb from ceiling or roof level directly above hole which has just been completed.



Step 3. Position appropriate firestop spacer at ceiling and nail temporarily with two (2) 8d nails. Use flat firestop spacer, Model 8FS\* for TF8 system and Model 10FS\* for the TF10 system, if chimney penetrates ceiling vertically. If chimney penetrates ceiling at 30° angle (offset chimney), use 30° firestop spacer, Model 8FS30\* for TF8 and Model 10FS30\* for TF10 system. Use one nail on opposite sides to hold firestop spacer in position. Nail permanently, using at least two (2) more 8d nails, after chimney sections have been assembled through the firestop spacer and after any necessary adjustments have been made. Firestop spacer must be secured by at least four (4) 8d nails when completely installed.

\*Note: Use Models 8FS-2, 8FS30-2, 10FS-2 or 10FS30-2 to maintain 2\* (51mm) clearance. Models 8FS-2 and 8FS30-2 must be used when installNote: If there is a room above ceiling level, firestop spacer must be installed on the bottom side of the ceiling. If an attic is above ceiling level, firestop spacer must be installed on top side of ceiling joist (Figures 23 and 24).

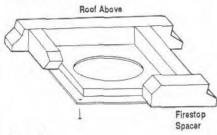
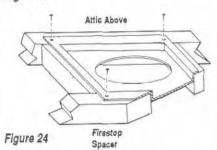


Figure 23



Step 4. Note: Chimney sections are constructed with a unique locking tab design which ensures an immediate, tight assembly between sections. Plan your chimney requirements carefully before assembly as chimney is difficult to disassemble after installation. If disassembled, the tabs might become damaged, Be certain tabs are properly formed to ensure locking tabs engage properly.

The TF8 and TF10 chimney systems are two-piece chimneys, which snap together from the fireplace up. Start with the inner flue section. With the hemmed end down, snap-lock it in to the matching collar on top of the fireplace. At all subsequent joints, the upper flue section fits into the preceding flue section. Each piece snaps together by means of locking tabs (9 locking tabs per joint). Check each piece by pulling up slightly from the top to ensure proper engagement before installing succeeding sections. If the flue has been installed correctly, it will not separate when you test it. Also, the inner flue joint where each section is joined should be tight and flat without gaps (Figure 25).

Outer pipe section installs in just the opposite way; the hemmed end goes UP and each new section goes OVER the outside of the previous section installed (Figure 26).

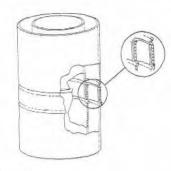


Figure 25

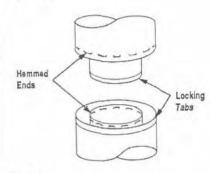


Figure 26

Note: Assemble one component of chimney at a time (inner section first, then outer section last) before proceeding with the next complete section.

Continue to assemble the chimney up through framed opening. Assemble just enough to penetrate the roof flashing openings (Figure 27). Always maintain 1" (25mm)\*\* (See \*\*Note) minimum air space to combustible materials and always check each chimney joint (inner and outer) to ensure proper engagement. Check vertical alignment of chimney so that it projects from the roof in true vertical position.

Superior chimney sections should not be screwed together and it is not required for additional reinforcement

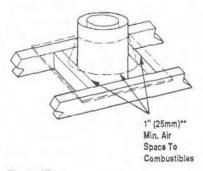


Figure 27

\*\*Note: 2" (51mm) when installing in Canada and 2" when installing TF8 chimney on Model RD-4300A.

Step 5. The height of vertical chimney pipe supported only by the fireplace must not exceed 30' (9.1m). Chimney heights above 30' (9.1m) must be supported by a Model 8-S4 or Model 10-S4 unitized stabilizer installed at 30' (9.1m) intervals.

Note: The Model 8-S4 and Model 10-S4 add 2 1/2\* (64mm) net effective height to the total chimney system.

Install the Model 8-S4 or 10-S4 stabilizer by fitting inner section down into respective section of proceeding flue pipe and locking outer stabilizer section into place over the outer chimney pipe. Position for proper clearance through framed opening and nail straps securely (under tension in "shear") into place on framing. Use 8d nails. Attach successive lengths of chimney pipe directly to stabilizer using same techniques as described in Step 4.

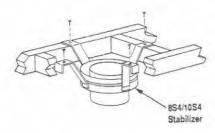


Figure 28

Note: Do not apply excessive pressure to any subsequent chimney sections following the stabilizer when installing. Ensure each subsequent chimney section is securely attached by testing as noted in Step 4.

Step 6. Select proper Superior roof flashing based on pitch of roof. Use chart below for selection:

Roof Pitch	TF8	TF10
Flat to 6/12	8-F6	10-F6
6/12 to 12/12	8-F12	10-F12

Next, slide roof flashing over extended chimney section that previously has been installed above the roof opening in Step 4. Slide flashing all the way down until the flashing base rests flat on the roof. Again, check the vertical position of the chimney and the 1" (25mm)\*\* (See \*\*Note) minimum air space to combustibles.

Step 7. Secure flashing by nailing along the perimeter into roof using 8d nails. If shingled roof, slide upper end and sides of roof flashing under shingles (trim if necessary), seal the top and both sides of the flashing to the roof with roof caulking. Cover nail heads with roof caulking (Figure 29).

\*\*Note: 2" (51mm) when installing in Canada and 2" when installing TF8 chimney on Model RD-4300A.

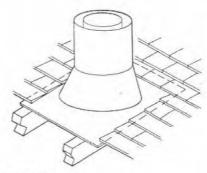


Figure 29

Step 8. The standard Superior roof flashing assemblies include a storm collar. Slide storm collar over outer chimney, align with top surface of flashing, insert tab in slot, pull tight and bend tab back over slot. Seal storm collar to outer chimney with roof caulking or mastic around entire circumference of pipe. Also add extra roof caulking where storm collar meets flashing and to the tab/slot area to seal completely against water penetration (Figure 30). Check all joints very carefully to ensure no water intrusion can take place.

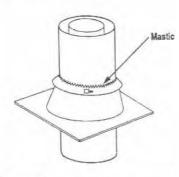


Figure 30

Step 9. Superior locking bands, Models 8LB or 10LB, may be required if the chimney extends too high above the roof flashing. As a general rule, if the chimney extends more than 6' (1.8m) above the roof flashing, the use of locking bands is advisable to strengthen the chimney assembly. Align the locking band at the chimney joint. Locking bands wrap around pipe joints equally covering the joints of both pipe sections. Use nut provided and TIGHTEN snugly. Do not over-tighten as this might damage chimney section (Figure 31).

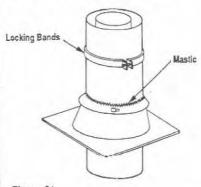


Figure 31

NOTE: DIAGRAMS & ILLUSTRATIONS NOT TO SCALE

Note: If chimney extends more than 8' (2.4m) above roof surface, guy wires are also recommended. Use three (3) guy wires, attach to locking band assembly, extend and secure to roof in a triangular pattern (Figure 32). Guy wires are not supplied by Superior.

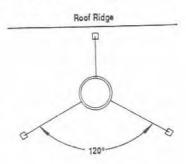
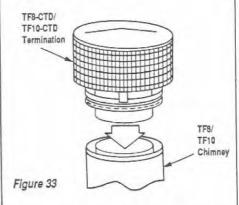


Figure 32
Step 10. Using a CTD Round Termination:

- Hold CTD over top of last chimney section (Figure 33).
- 2) Center inner slip section in inner flue pipe-slip down.
- Center outer locking section over outer flue pipe.
   Push down until locking tabs are firmly engaged.
- 4) Pull up slightly on CTD to ensure locking joint has firmly engaged.



Note: Special galvanized over-dipped CTD terminations (P/N 031101 for 8\* and P/N 031102 for 10\*) and CTDT terminations (P/N 031111 for 8\* and P/N 031112 for 10\*) are available for installations susceptible to corrosive environments. Contact your distributor or Superior Customer Service for pricing and availability.

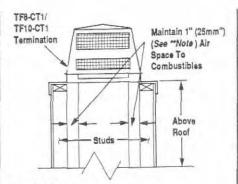


Figure 34

### Using a CT1 Chase Termination

Refer to specific installation instructions included with CT1 chase termination for clearance statements and installation details.

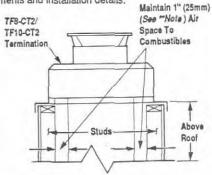


Figure 35

### Using a CT2 Chase Termination

Refer to specific installation instructions included with the CT2 chase termination for clearance statements and installation details.

### Using a CTDT Chase Termination

Refer to specific installation instructions included with the CTDT chase termination for clearance statements and installation details.

Note: It is recommended that all exterior exposed related metal fireplace components; such as terminations, flashings, storm collars and/or flue be painted with a premium-quality, high-temperature, rust-preventative paint designed for metal. This is especially important when installations are made in abnormally adverse or corrosive environments; such as near lakes, oceans or in areas with consistently high-humidity conditions. Consult the paint manufacturers instructions for proper preparation and application.

\*\*Note: 2" (51mm) when installing in Canada and 2" when installing TF8 chimney on Model RD-4300A.

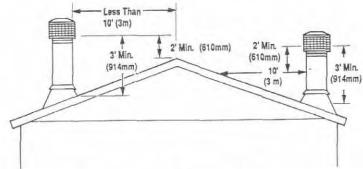


Figure 36

### TEN-FOOT RULE SUMMARY

The minimum chimney height above the roof and/ or to adjacent walls and buildings is specified by all major building codes.

If the horizontal distance from the peak of the roof is less then 10' (3m), the top of the chimney must be at least 2' (610mm) above the peak of the roof.

If the horizontal distance from the chimney edge to the peak of the roof is more than 10' (3m) a chimney height reference point is established on the roof surface 10' (3m), horizontally from the chimney edge. The top of the chimney must be at least 2' (610mm) above this reference point. In all cases, the chimney cannot be less then 3' (914mm) above the roof at the edge of the chimney.

The 2' in 10' rule is necessary in the interest of safety, but does not ensure smoke-free operation. Trees, buildings, adjoining roof lines, adverse wind conditions, etc., may require a taller chimney should the fireplace not draft properly (Figure 34').

### MULTIPLE TERMINATIONS

If more than one termination is located in the same chase or within the same general proximity, we suggest they should be separated in distance at least 24\* (610mm) horizontally from flue center to flue center and stacked or staggered vertically at least 18\* (457mm) apart, from the termination of one smoke exit to the termination of another smoke exit (Figure 35).

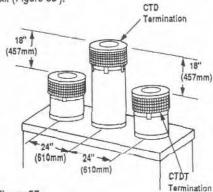


Figure 37

NOTE: DIAGRAMS & ILLUSTRATIONS NOT TO SCALE

This suggestion is provided in the interest of better operation. If the terminations are located too close to each other, smoke may migrate from one flue into the other.

### TF8 AND TF10 CHIMNEY COMPONENT CALCU-LATIONS

The minimum installed height of the RD-3300A and RD-3800A Series fireplace systems is 12'0" (3.67m). The minimum installed height of the RD-4300A Series fireplace system (including fireplace and chimney components) is 15'0" (4.57m). The maximum height for all systems is 80'0" (24.38m).

To determine the number of chimney sections and chimney components required, follow these steps:

- Determine total vertical height of the fireplace installation. This dimension is the distance from the surface the fireplace sets on to the point where smoke exits from the termination.
- Determine the number of chimney components required, except chimney sections. This would include firestop spacers, stabilizers, roof flashing, etc.
- 3. The effective heights of the components are:

The Fireplace = 38\* (965mm)

CTD Termination = 4\* (102mm)

CT1 Termination = 12" to 18" (305mm to 457mm)

CT2 Termination = 15" to 23" (381mm to 584mm)

CTDT Termination = 12" to 18" (305mm to 457mm)

SS Starter = 19\* Section (483mm)

S4 Stabilizer \* = 2 1/2\* (64mm)\*

\* Required for every 30' (9.1m) of vertical chimney and/or 10' of offset chimney.

# VERTICAL ELEVATION CHART - TF10 SYSTEM

Heigh	nt Of		Numbe		Heigh			lumber		Heigh			Number Flue Lo		gths Flue Or			Numbe Flue Li	engths
Flue		TF-10	Flue L	engths	Flue	Only					Feet	12"	18"	36"	Inches	Feet	12"	18"	36"
Inches	Feet	12"	18"	36"	Inches	Feet	12"	18"	36"	Inches	42' 014 "	2		14	71734*	59' 934"	1	1	20
		-		2	293 1/4 "	24' 51/4"		1	8	50434*		1	1	14	7251/4"	60" 514 "	1		21
801/4"	6' 81/4"	1.		2	2973/4"	24' 9%"	2		8	510%*	42' 6% "		1	15	7281/4"	60' 814"	2	19	20
861/4"	7' 21/4"		1		3031/4"	25' 314"	1	1	8	5181/4"	43' 21/4"			14	7353/4*	61' 314"	1		21
90 % "	7' 634"	2		2		25'111/4"	100		9	5211/4"	43' 51/4"	2	1		7413/4"	61' 91/4"		1	21
961/4"	8' 01/4"	1	7	2	3111/4"	26' 21/4"	2	1	8	528 1/4 *	44' 034"	1		15	7461/4"	82' 21/4"	2		21
103%*	8' 734"			3	3141/4"		1		9	534%"	44' 6% "		1	15	7521/4*	62' 81/4"	1	1	21
1071/4"	81114	2	1	2	32134"	26' 914"			9	5391/4"	44"11%"	2		15		63' 334 "		1	22
1141/4"	9' 61/4"	1		3	32734"	27' 334"		1	9	5451/4"	45" 51/4"	1 1	1	15	759%*		-	1	21
	10' 014"	1	1	3	332 14	27" 81/4"	2	1 .		552 1/4"	46' 0%"		1	16	7623/4"	63' 63% "	2	1	22
12014		2	,	3	3381/4"	28' 21/4"	1	1	9		46' 3%	2	1	15	7701/4"	64" 21/4"	1		22
1243/4"	10' 43/4"	2	1 1	3	345 3/4 "	28' 9% "			10	55534				16	7761/4"	64' 81/4"		1	
130 34 "	10'10%"	1	1	4	34834*	29' 034"	2	3	.9	5631/4"	46'11'4"	1 1	1	16	78034 *	65' 01/4"	2		22
1383/4"	11' 6%"	1			3661/4*	29' 81/4"	1		10	5691/4"	47' 51/4"	2	1	16	786 1/4 *	65' 61/4"	1	1	22
14136"	11' 914"	2	1	3		30' 21/4"		1	10	5731/4"	47' 93/4"	2	1		7941/4"	66' 214"			23
1491/4"	12' 514"	1		4	3621/4"		0		10	57934	48' 31/4"	1	1	16		66' 514"	2	1	22
1551/4"	12'11'4"		1	4	366 1/4 "	30' 61/4"	2	1	10	5871/4*	48"1114"			17	7971/4"		1 1		23
15934"	13' 31/4 *	2		4	37234*	31' 0%	1	1		5901/4 *	49' 21/4"	2	1	16	8043/4"	67' 0% "			23
	13' 9%"	1	1	4	3801/4"	31' 81/4"	1	1 -	11		49' 9% "	1		17	81034"	67' 634"	1	1	23
165% "		,	1	5	38234"	31'10%"	2	1	10	59734"	50' 3% "		1	17	8151/4"	67'111/4"			
1731/4"	14' 514"	1		4	390 1/4 "	32' 634 "	1		11	6031/4"				17	8211/4"	68' 51/4"	1	1	23
1761/4"	14' 81/4"	2	1		3963/4"	33" 034 "	1 8	1	11	6081/4"	50' 814"	2	1"	17	8283/4"	69' 03/4"			24
18334"	15' 3%	1		5	4011/4"	33' 514"	2	1	11	6141/4"	51' 214"	1	1		83134*	69' 3% "		1	2:
18934 *	15' 934"		1	5		33'11'4"	1	1 3	11	5213/4"	51' 9%			18	8391/4"	69'111/4"			24
1941/4"	16' 21/4"	2		5	4071/4"			,	12	8243/4"	52' 034"	2	1	17		70' 514"		1	2
2001/4"	16' 8%		1	5	41474"	34' 614"		1	11	6321/4"	52' 81/4	1		18	8451/4"				2
207 3/4 "	17' 3%		10	6	417 % "	34" 934 "	2	1		6381/4"	53' 21/4'		1	18	84934	70' 934"			2
	17' 534		1	5	425 1/4 "	35" 51/4"	1		12		53' 61/4			18	85534*	71' 334			2
210%*			100	6	431 1/4 "	35'1114 "		1	12	64234"			1	18	8631/4"	71111/4		4	
2181/4"	18' 21/4'		4	8	43534"	36' 3%'	2		12	6481/4"	54" 01/4"			19	8661/4 *	72' 21/4	2	1	2
2241/4"	18' 814		1	6	44134 *	36' 9%'	1	1	12	6561/4"	54' 81/4		1	18	87334*	72' 9%	1	1	2
228 3/4 "	19' 03/4	- 2	1 0		4491/4*	37' 514			13	6591/4"	54'11'/4		1 1		8793/4"	73' 3%'		1	2
234 3/4 "	19' 63/4	1	1	6		37' 8%	2	1	12	66634*	55' 634	1		19		73' 81/4			2
2421/4"	20' 21/4	*		7	4523/4"				13	5723/4"	56' 034		1	19	8841/4"			1	2
2451/4"	20' 51/4	- 2	1	6	459 1/4"	38' 374'	1		13	8771/4"	56' 414			19	8901/4 **	74' 21/4		1 .	1 3
25234*	21' 0%			7	465 3/4 "	38' 934'		1		6831/4"	56'10'/4		1	19	8973/4"	74' 93/4	100	1 2	1
			1	7	4701/4"	39' 21/4			13		57' 634			20	900 1/4 "	75' 034		1	
258 3/4 "	21' 6%	. 2	1	7	476 1/4 "	39' 81/4	1	1	13	69034 "			1	19	9081/4 *	75' 81/4	5 1		3
2631/4"	21/111/4		1	7	48334"	40' 334			14	6931/4"	57' 93/4		1	20	9141/4"	76' 2%		1 1	3
2691/4"	22' 5%		1	8	4863/4"	40' 634		1	13	701%	58' 51/4		1 4		91834			1	
2763/4"	23' 01/4	-				41' 21/4	- 1		14	7071/4"	58'1114		1	20	3104	70 074	-		
2793/4*	23' 3%	- 2	1	7	4941/4"	41 81/4		1	14	71134	59' 344	. 2		20			1		
2871/4*	23/111/4			8	500 1/4 "	41 674		1	100					1			_	_	_

# VERTICAL ELEVATION CHART - TF8 SYSTEM

Heigh			ber				ht Of			Of Ti		Heig			mber ue Le				ht Of Only			Of engt		Heig Flue	Only		mber ue L		
Flue	Only	-	e Le	_	-		Only	12"	-	_	48"	Inches	Feet	12"	18"	36"	48"	Inches	Feet	12"	18"	36"	48"	Inches	Feet	12"	18"	36"	-
ches	Feet	12"	18"	36"	48"	Inches	Feet		_	30	-	3371/4	31' 5'/4"	-	1	1	7	5631/4	46'11'/4"	-	1	1	11	7491/4	62' 514"	-	1	1	1
101/2	0'101/2"	1	-	-	-	1911/4	15'1114"	-	1	1	3	3831/4	31'111/4"	-	-	-	8	5691/4	47' 5%"	1	-	-	12	7551/4	62'11'4"	1	-	-	1
161/2	1' 41/2"	-	1	-	-	1971/4	16' 51/4"	3	-	-	1	0.000	32' 51/4"	-	1	_	8	5751/4	47"111/4"	-	1	-	12	761 1/4	63' 51/4"	-		-	1
2134	1' 93/4"	2	_	-	-	2031/4	16'11'/4"	-	1	-	4	389 1/4	32' 9%"	2	-	-	8	57934	48' 344"	2	-	-	12	7653/4	63' 934"	2	-	-	
2734	2' 3%"	1	1	-	-	2073/4	17' 334"	2	-	-	4	393 1/4	33 344"	1 4	1		8	58534	48' 9%"	1	1	-	12	7713/4	64" 334"	1	1	-	1
3334	2' 93/4"	-	2	_	-	2133/4	17' 934"	1	1	-	4	3993/4		,		1	8	5931/4	49' 51/4"	-	-	1	12	7791/4	64'111/4"	-	-	1	1
341/2	2'101/2"	_	_	1	-	2213/4	18' 514"	-	-	1	4	4071/4	33'111/4"	-	-	-	8	5961/4	48' 81/4"	2	1	-	12	7821/4	85' 21/4"	2	1	-	1
381/4	3' 21/4"	2	1		-	2241/2	18' 81/4"	2	1	-	4	410%	34' 214"	2	1 1	-	9	6051/4	50' 514"	-	-	-	13	7911/4	85'11 1/4"	-	-	-	1
431/4	3' 71/4"	1	2	-		2331/4	19' 514"	-	-	-	5	4191/4	34'1114"	-	-	1	8	6091/4	50' 934"	-	1	-	12	795 1/4	66' 31/4"	-	3	1	1
461/2	3'101/2"	1-	_	-		237 1/4	19" 93%"	-	1	1	4	4233/4	35' 3%"	1-	1	1	9	61534	51' 3%"	1	-	-	13	80134	66' 034"	1	-	-	1
	4' 334"	-	1	10		243 3/4	20' 334"	1	-	-	5	4293/4	35' 9%"	1 1	1-	1-	9	62134	51' 9%	-	1	1_	13	80734	67' 314"	-	1	-	1
5114	4' 934"	1	1	-	1	2493/4	20' 9%"	-	1	-	5	4353/4	36' 33/4"	1-	1	-	1	1927	52' 21/4"	2	-	-	13	8121/4	67' 81/4"	2	-	-	1
573/4	1000	1	1	1 -	1 2	25434	21' 21/4"	2	-	1	5	4391/4	36" 714"	1 2	-	-	9	6261/4		1	1	-	13	8181/4	68' 21/4"	1	1	1-	1
63%	5' 31/4"	-	1	-	1 .	2601/4	21' 81/4"	1	1	-	5	4461/4	37' 21/4"	1	1	-	9	6321/4			_	1	13	825 1/4	68' 934"	-	-	1	
681/4	5' 814"	2	1	-		267 3/4	21' 3%	-	-	1	5	435 4	37' 91/4"	1-	-	1	9	6391/4	53' 3%'		1	12	13	82834	69' 034"	2	1	-	
741/4	6' 21/4"	1	1	-		2703/4	22' 63/4"	2	1 1	-	5	456 3/4	38" 0%"	2	1	-	9	6423/4	53' 634'	2	1		14	837 34	69' 91/4"	1	-	1-	
813/4	6' 93/4"	-	-		1 1	27934	22' 334'	1-	1-	-	6	4653/4	38' 91/4"	1-	-	-	10	851 %	54' 3%'		1	1-		8421/4	70' 21/4"	-	1 1	1	
843/4	7' 034"	2	1	1-			23' B1/4'		1	1	5	4701/4	39" 21/4"	1-	1	1	9	6561/4	54' 81/4'	-	1	1	13		70' 814'	1 3	-	-	
93%	7' 9%"	-	-	1-	- 2	2841/4	1000	1	1_		6	4761/4	39" 81/4"	1	-	-	10	6621/4	55' 21/4'	1	-	-	14	8481/4	1 2 2	1	1		
98 3/4	8' 23/4"	-	1		1 1	290 1/4	24' 21/4'	1	1	1	6	4821/4	40' 21/4"	-	1	1-	10	6681/4	55' 814	-	1	-	14	8541/4	71' 2'4'		1		
1041/4	8' 81/4"	1	-	1-			24' 81/4'	1100	1 .	1	6	4863/4	40' 63%"	1 2	-	-	10	67234	56' 0%	2	-	-	14	858 1/4				1	
1101/4	9' 21/4"	-	1	1-			25' 0%4	2	1-	-	6	4923/4	41' 0%	1	1	-	10	6783/4	56' 6%	1	1		100	864 %	72' 0%'	1		17	
11434	9' 63%"	2	1-	-	- 2		25' 61/4	1	1 '	1 3	6	500 1/4	41' 894"	-	-	1	10	6861/4	57' 21/4	-	1-	1	14	8721/4	72' 814'		1		
12034	10' 0%	1	1	-	- 3		26' 21/4	1-	1	11.		50334	41'1114'		1	-	10	6891/4	57' 51/4	1 2	13	-	14	8751/4	72'111/4			1-	
1281/4	10' 814	-	-		1 3	3171/4	26' 51/4	2	1	-	6		42' 814'	1		_	11	6981/4	58' 21/4		-	-	15	8841/4	73' 81/4		-	1	
1311/4	10'15 1/4"	1 2	1	1 -	- 3	3261/4	27' 21/4	1-	-	-	1 1	5121/4	43' 034		1	1	10	70234	58' 63/4		1 3	1 1	14	888 1/4	74' 0%		1		1
14014	11' 81/4	-	1-		_ 3	330%			1	1	6	5161/4	43' 634				1	70834	59' 0%	1 1	1-	-	15	894 1/4	74' 634		-	-	-
14434	12' 0%		1	1	1 3	336 3/4			1-		17	5223/4		- 1			1.2.2	71434	59' 634	0 _	1	1 -	15	90034	75' 03/4			1-	-
1503/4	12 634		-		_	3 3243/				-	17	528 3/4	44 44				1	7191/4	59'11'/4		-		15	9051/4	75' 51/4			1-	-
15634	13' 0%			1 .	_   -	347 1/	28'1114	1 2	-	-1-	17	533 1/4	44' 51/4		2 -		133	Lucia Co	60' 514			1 -	15	9111/4	75'1114	1	1	-	-
1611/4	13' 51/4		- 2	1		3 353 %	29' 51/4	1		1 -	1 7	539 1/4	44'11'4		1		1.35	37777	61' 034		-	2 3	1 15		76' 634	0 -	-   -	-	1
1671/4	13'1114		13		_	3 360%		* -	-	- 1	17	546 1/4					100	100000	300			1 -		0.549.30	76' 91/4	- 3	2 '	1 -	-
	14' 6%					3 3633		- 3	2	1 -	7	54934			2	1 -		15.76	755 S 5 7				100	0.00	77' 6%	-			_
1743/4	100					3 3721	547.000			-	8	55834	46' 6%	-			12	74434	02 0%	1	1		10	300	1000				
177 %	100160		-	1	-	SIE					1				- 1	1				1	1					_	_	-	-

4. Determine amount of chimney height required by subtracting total combined height of all preselected components (fireplace and chimney components from total desired height.)

Reference Vertical Elevation Chart and determine the number of chimney sections (quantity and length) required.

### SPECIAL OFFSET INSTRUCTIONS

To clear any overhead obstructions, you may offset your chimney system using Superior 30° offset and return elbows. Use two elbows - an offset elbow to initiate the offset and a return elbow to terminate it.

The offset and return elbows may be attached together, or a section or sections of chimney may be used between, but do not exceed 20' (6.1m) in total length between elbows. When offsetting directly off Model RD-4300A, always use a TF10-30 offset elbow. The TF8-SS starter section may then be used as a transition to the TF8 chimney system. If sections of pipe exceed 10' (3m) between elbows, a chimney stabilizer must be used at the 10' (3m) point. The stabilizer support straps must be attached under tension (in shear) to structural framing members above. When two sets of elbows are used, the maximum combined length of chimney used between elbows cannot exceed 20' (6.1m) (Figure 41). Example: If C, = 10' (3m) then C, cannot exceed 10' (3m). A 30° offset elbow, angling in any direction, may be the first component used off the top of the fireplace flue collar.

Maximum offset of chimney system in the U.S. is 30°. In Canada, the maximum offset is 45°. Refer to the Canadian installation addendum for specific information and application. Two offsets must not be assembled to form a 60° offset. However, two sets of offset and return elbows may be used on a single flue system, provided the total height of the system exceeds 25' (7.5m).

Return elbow support straps must be securely attached under tension (in shear) to structural framing members above. Do not substitute a TF8-30 or TF10-30 offset elbow in place of a TF8-E30 or TF10-E30 return elbow.

#### OFFSET CALCULATIONS

- Use Offset Chart to determine amount of horizontal offset (A) and height (B) for various chimney section assemblies.
- 2. Use "Height of Flue Only" column in The Vertical Elevation Chart to determine combinations of chimney used above return elbow to achieve desired heights. Reference Components Effective Height Chart in vertical elevation chart section.

# TF8 OFFSET ELEVATION CHART (WITH TF8-SS STARTER SECTION)

A	B	TF10-30 10" Offset Elbow	TF8-E30 8" Return Elbow	TF8-SS Starter Section	TF-8 12" Flue	TF-8 18" Flue	TF-8 36" Flue	TF-8 48" Flue	A	B	TF10-30 10" Offset Elbow	TF8-E30 8" Return Elbow	TF8-SS Starter Section	TF-8 12" Flue	TF-8 18" Flue	TF-8 36" Flue	TF-8 48° Flue
13%	321/2	1	1	1	-	=	-	-	451/4	87	1	1	t	-	1	-	1
19	41	1	1	1	1	-	-	120	471/2	91	-1	1	1	-	2	1	-
22	4634	1	1.	1	-	1	-	-	481/4	921/4	1	1	1	-	-	2	+
241/2	5044	1	1	1	-2	-	-	-	4934	94%	1	1	1	2	1	1	-
271/4	56	1	1	1	1	1	-	-	52	9814	1	1	1	1	4	-	-
301/4	61	1	1	1	_	2	-	-	531/2	10114	1	1	1	1	-	2	-
31	621/2	1	1	1	-	-	. 1	-	541/4	1023/4	1	1	1	-	-	1	1
321/2	65	. 1	7	1	2	1	-	-	5534	1051/4	1	1	1	-	3	1	-
351/2	701/4	1	1	1	1	2	-	-	561/2	1061/2	1	-1	1	-	1	2	-
3614	711/2	1	1 .	7	.1	-	1	-	5834	1101/2	1	1	1	2	-	2	-
37	72%	7	1	3	-	-	-	1	591/2	11134	1	1	1	1	-	1	1
381/2	751/1	1	3		-	3	-	-	501/4	113	1	1	7.4	-	-	-	2
391/4	76%	1	1	1	-	4	1	-	6114	115%	1	- 1	1	1	1	2	
411/2	801/2	1	1	7	2	-	1	-	64%	12014	1	1	1	-	2	2	-
421/4	81%	1	9	1	1	-	-	1	651/2	1221/4	1	1	1	1	-	-	1
44%	85%	1	1	1 +	1	1	1	-	67	124%	1	1	1	2	4	2	-

### TE8 OR TE10 OFFSET ELEVATION CHART

A Offset (Inches)	B Height (Inches)	TF8/ 10-30 Offset Elbow	TF8/ 10-30 Return Elbow	TFB/ 10-S4 Stabilizer	TFB/10 12" Plus Langth	1F8/10 15" Flue Length	TF8/10 36 Flue Length	1F8 48" Flue Length	A Offset (inches)	8 Height (Inches)	TFB/ 16-30 Officer Eibow	TF8/ 10-30 Return Elbow	TF8/ 10-54 Stabilizer	TFE/10 12" Flue Length	TF8/10 18" Flue Length	TFE/10 36" Flue Length	1F8 48" Fige Length
4%	16	1	1	-	-	-	-	-	59	110%	1	1	-	-	1	-	2
9%	25	1	1	-	1	-	-	-	61.5%	11454	1	1	-	1	rad)	3	-
121/6	3034	1	1	-	-	1	-		62 Va	117	3	1	1	T	=	3.	-
14%	341/4	1	2	2	2	-	-	-	651/2	122	. 3	1	1			3	-
17%	3914	1	1	-	1	-7	-	-	67.14	125%	1	1	1	2	-	3	_
2014	44%	1	1	-	.me	2	-	-	89%	1281/2	1	7	2	-	-	. 1	2
21%	46	9	1	-	-	-4	1	-	70%	131	-1	1	12	1	1	3	-
23	48%	4	1	-	2	1	-	-	73%	1361/4	3	1	4	-	2	-3	-
26	53%	1	1	-	1	2	-	-	751/4	139	1	1	1	-	-	-	3
2634	55	+	1	-	1	-	+	-	7944	1461/2	1	3	1	1	-	4	=
271/2	5614	-	191	-		-	-	1	80 %	148	1	1	1	1	-	-	3
29	59	4	1.0	-	-	3	-	-	8234	15134	.3	1	1	-	1	4	-
2914	601/4		14	-	-	3	1	-	83%	15314	1	1	1	-	3	-	3
32	64	4	- 2	_	2	-	1.	_	85	15534	1	1	1	2	-	4	-
32%	85%	1	1	-	1	-	-	1	88	150 %	1	1	1	†	1	4	-
35	6914	4	1	-	1 7	1	1	-	31	166	1	1 1	1 7	-	2	4	-
	70%	4	3		-	1	-	1	9214	16814	3.	7	1	-	-	.1	3
35*4	74%	1	1		3.0	2	9	-	9314	170	10	1	1	2	3	4	-
3814	7535		1	_	1	-	2	-	97	17815	3	1	1	7	-	5	-
401/4	7814	4	1		2	1	3	-	381/9	17914	1	1	. 1	-	-	-	4
42%	8214	1	1		1	4	-	-	100	1817/2	31	1	1		1	- 5	-
44	8434		12	_	4	300	2	-	1021/4	1851/2	1		1	2	-	5	-
4434	8614	4		-	-	-	1	1	10519	19034	1	1	1	1	1	5	-
461/4	8814			-	_	3	1	-	10614	1931/2	1.	1	1	-	1	-	4
47	90		1	_	-	7	2	-	10814	196	- 5	1		-	5	5	-
4914	94		1		2	-	2	_	110%	199%	9	1	1	2	1	5	-
50	9514	- 1	1	_	1	-	1	1	11416	2041/4	7	1	1	1	-	8	-
5034	9514	7	1		-	-	-	-2	115%	209	1	1	1	-	-	1	4
5214	99%	1 3	1 1	-	1	1	2	-	71716	211%	3	1 1	1	-	1	5	) -
5514	104%	1	1	2	-	2	2	-	1197	2151/2	1	1	1	2	-	8	-
	1051/9	1	1			-	-	2	12134	21914	1	1	1	-	-	-	5
56 57 1/2	10814	1		-	2	1	2	-	-	100		1					

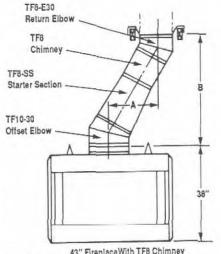


Figure 38 And TF8-SS Starter Section
NOTE: DIAGRAMS & ILLUSTRATIONS NOT TO SCALE

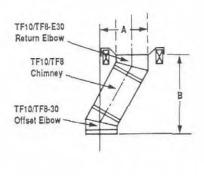
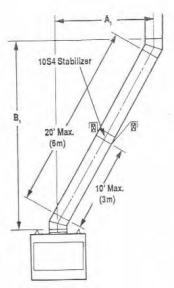


Figure 39



### Figure 40

3. Use Elevation Chart as job estimator only. Add necessary firestop spacers and stabilizers as required. Firestop spacers must be used as shown in Figures 23 and 24 and stabilizers as shown in Figure 28.

### TO INSTALL OFFSETS

First, review Chimney Offset Elevation Chart and Figures 38 and 39 on page 12 for reference.

Step 1. Select desired chimney system; TF8 (203mm) for RD-3300A and RD-3800A, TF8 or TF10 (203 mm or 259mm) for RD-4300A. Determine the offset distance where chimney is to pass through the first ceiling-dimension "A". To find this point on your ceiling, first determine the center point for a vertical chimney following the instructions for vertical installation.

Measure height to the ceiling from the top of fireplace-dimension "B". Use Offset Elevation Chart to find dimension "A". Mark point where you will drive your nail to show the center point for your offset ceiling cut.

Step 2. Proceed by using the Straight Up Installation Instructions for cutting and framing ceiling and roof openings.

Note: See Framing and Dimension Chart for the sizes of the ceiling and roof openings. The size of the roof opening varies with the degree of pitch of the roof.

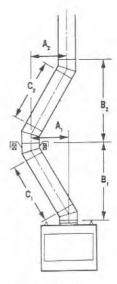


Figure 41

### OFFSET ELBOW ASSEMBLY

Offset elbows install the same as chimney sections. First, snap the inner section INTO the preceding inner section of flue. Check connection by pulling up slightly to ensure a tight fit. Next, the outer sections snap lock OVER the preceding outer section of chimney. Again, check outer section by pulling up slightly to ensure proper connection is made.

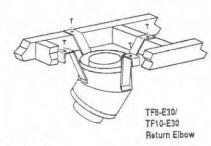


Figure 43

### RETURN ELBOW ASSEMBLY

Return elbows install the same way as round terminations and stabilizers:

Step 1. Hold return elbow over top of last chimney section

Step 2. Center inner slip section into inner flue pipeslip down.

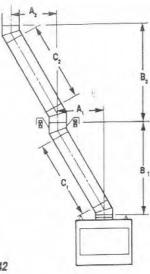


Figure 42

Step 3. Center outer-locking section over outer chimney pipe. Push down until locking joint has firmly engaged.

Step 4. Pull up slightly on return elbow to ensure locking joint has firmly engaged.

Step 5. Secure support straps to framing members by nailing under tension in sheer.

**Note:** The return elbow assembly performs the same function as a stabilizer. Consider this when determining the need for a stabilizer.

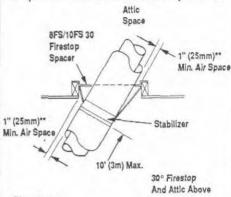
Note: Do not apply excessive pressure to any subsequent chimney section following return elbow assembly when installing. Ensure that each subsequent chimney section is securely attached by testing as noted above.

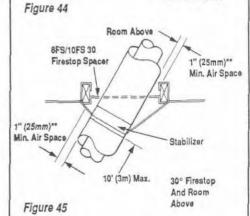
# TF8 AND TF10-OR15 OFFSET/RETURN ELBOWS

Primarily used when fireplace penetrates a 6\* (152mm) thick wall. Refer to installation instructions packed with TF8-OR15 and TF10-OR15 for proper usage.

### CHIMNEY OFFSET 30° THROUGH FLOOR OR CEILING

It may be necessary to assemble the chimney at 30° when passing through the floor or ceiling area. Use appropriate 30° angled firestop spacer as shown in Figures 44 and 45. Support the chimney at floor or ceiling penetration with a stabilizer if distance of chimney below ceiling is 10' (3m) or more. Maintain 1\* (25mm)\*\* (See \*\*Note) minimum air space to combustibles from chimney sections.





### ACCESSORIES Optional Glass Doors

If glass doors are to be installed on this system, refer to specific installation instructions packed with the glass doors. Superior glass doors, Model numbers 33C-PB, 38C-PB, 43C-PB, 33BF-AB, 38BF-AB, 43BF-AB, 38BF-AB, 38BF-AB, 38BF-AB, 33GBF-SPB, 33GBF-SPB, 33GBF-SPB, 38BF-SPB, 33GBF-SPB, 38BF-SPB, 33GBF-SPB, 33GBF-

CAUTION: DO NOT ATTEMPT TO TOUCH THE DOORS WITH YOUR HANDS WHILE THE FIRE-PLACE IS IN USE. ALWAYS USE DOOR HANDLES. DOORS WILL BECOME VERY HOT WHEN FIREPLACE IS IN USE.

WARNING: FIREPLACES EQUIPPED WITH DOORS SHOULD BE OPERATED ONLY WITH THE DOORS FULLY OPEN OR FULLY CLOSED.

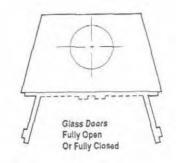


Figure 46

CAUTION: CERTAIN GLASS DOORS OVERLAP THE BLACK METAL FACING OF THE FIRE-PLACE. IF THE FIRE-PLACE HAS BEEN FACED WITH NON-COMBUSTIBLE MATERIALS, THERE MIGHT NOT BE SUFFICIENT CLEARANCE TO INSTALL THE GLASS DOORS OF YOUR CHOICE. ENSURE ADEQUATE CLEARANCE IS MAINTAINED AT ALL TIMES SO AS NOT TO INTERFERE WITH THE INSTALLATION AND OPERATION OF GLASS DOORS.

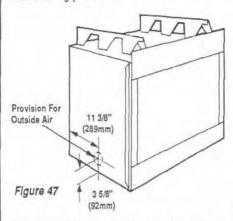
### Optional Combustion Air Kit

Use combustion air kit, Model AK-4A, with the RD-A Series fireplace. Refer to installation instructions packed with the AK-4A air kit for specific installation information. The outside air kit must be installed before the fireplace is framed and enclosed in the finished walls.

Outside air drawn into the fireplace supplies air to the fire for combustion. Only one combustion air duct on the left side of the fireplace is necessary if installed. If additional length of duct is necessary, purchase locally available U.L. Class 1 aluminum ducting. The duct may extend up to 50' (15.24m) in any direction.

Note: When installing the air duct vertically, DO NOT terminate the duct closer than 3' below the chimney top.

There is one hand operated shut-off valve located in the left side of the fireplace opening under the screen. To open, turn the handle to the right. The combustion air damper should be fully open when the fireplace is in use and fully closed when the fireplace is not in operation to prevent outside air from entering your home.



CAUTION: NEVER LOCATE INLET WHERE IT CAN BE BLOCKED BY SHRUBS, SNOW DRIFTS, ETC. NEVER LOCATE INLET IN GARAGE OR ANY AREA WHERE THERE IS ANOTHER FUEL BURNING APPLIANCE OR PRODUCTS EMITTING COMBUSTIBLE GASES SUCH AS PAINT, GASOLINE, ETC. IN COLD CLIMATES IT IS RECOMMENDED THE COMBUSTION AIR DUCT BE INSULATED.

Outside combustion air ducting may be run upwards or vertically through framing and ceiling joists, with the hood installed through an outside wall and 3' below the termination. Ducting may also be run downward through floor joists and under the home to a ventilated crawlspace not considered part of the living area of the home.

Note: Do not terminate combustion air kit in attic space under any circumstances.

<sup>\*\*</sup>Note: 2" (51mm) when installing in Canada and 2" when installing TF8 chimney on Model RD-4300A.

#### GAS LINE

This provision is intended only for connection to a decorative gas appliance incorporating an automatic shut-off device and complying with the Standard for Decorative Gas Appliances for Installation in Vented Fireplaces. Install in accordance with the National Fuel Gas Code, ANSI Z 223.1; or CAN 1-B149 for Canadian installations.

CAUTION: PLUMBING CONNECTIONS SHOULD ONLY BE PERFORMED BY A QUALIFIED, LICENSED PLUMBER. MAIN GAS SUPPLY MUST BE OFF WHEN PLUMBING GAS LINE TO FIRE-PLACE OR PERFORMING SERVICE.

If you're installing a gas line, connect it before the fireplace is framed and enclosed in the finished wall. The gas knockout is determined by a 1 1/8" (29mm) round indentation located at the bottom and slightly off center in the side-refractories. THE KNOCKOUT IS ALWAYS REMOVED FROM INSIDE THE FIREPLACE, DO NOT REMOVE THE KNOCKOUT UNLESS YOU ARE INSTALL-ING A GAS LINE. If removal is attempted from the outer wrapper, side-refractory damage may occur. With a medium-sized hammer, lightly tap the surface of the indentation. The refractory material is very thin in this area and is easily removed. Once a small hole has been made, continue tapping until you have reached sufficient diameter for the gas line to fit through. The entire knockout does not have to be removed. Remove insulation in the gas line channel

Install only a 1/2\* (13mm) black iron pipe through fireplace wall for connection to a decorative gas appliance inside the firebox. Outside, the iron pipe connects to a gas shut-off valve recessed flush into the wall or floor. The valve should be controlled by a removable valve key for safety.

Always plumb gas line installation per local codes. Check all connections with soap suds; leaks will bubble. Never test any gas line connection with a match or open flame.

IMPORTANT: RE-PACK INSULATION MATERIAL IN SQUARE HOLE AROUND GAS LINE, INTERIOR AND EXTERIOR TO SEAL.

CAUTION: WHEN USING THE DECORATIVE GAS APPLIANCE, THE FIREPLACE DAMPER MUST BE SET IN THE FULLY OPEN POSITION.

### COLD CLIMATE INSULATION

If you live in a cold climate, it is especially important to seal all cracks around the fireplace opening with non-combustible material and wherever cold air could enter the room. Surrounding materials must be caulked where it meets the black metal facing of the fireplace to avoid cold air intrusion. Use non-combustible caulking material only on fireplace facing to seal. Also, the outside air inlet duct should be wrapped with non-combustible insulation to minimize the formation of condensation. Do not place insulation materials against chimney sections

Note: A 1" (25mm)" (See \*\*Note) air space must be preserved for all materials extending for any continuous length adjacent to the chimney.

It is especially important to insulate between the studs of an outside chase cavity and under the floor if the floor is above ground level. Do not place insulation directly against the fireplace or chimney system.

### FIREPLACE FINISHES, HEARTH EXTENSIONS, WALL SHIELDS Framing

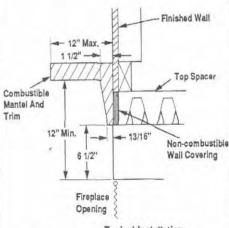
It is sometimes best to frame your fireplace after it is positioned and the chimney is installed. Frame enclosure for chimney and fireplace with 2 x 4's (51 x 102 mm) (or heavier) lumber.

Note: The header may rest on the two (2) metal spacers on top of the unit but the header must not be notched to fit around the spacers.

The RD-A Series may sit directly on a combustible surface. A 1\* (25mm)\*\* (See \*\*Note) air space is required between combustible framing and the chimney. In Canada, the minimum height for a combustible mantel is 18\* (457mm) above the fireplace opening. Figures 48 and 49 show typical Canadian installations. In installations other than Canada, combustible mantels and trim may either project in front of or be flush with the finished wall as per NFPA 211 section 7-3.3.3. and Figure 50. If a mantel is of a non-combustible material, it is exempt from these requirements as long as it does not interfere with the installation or operation of glass doors.

\*\*Note: 2" (51mm) when installing in Canada and 2" when installing TF8 chimney on Model RD-4300A.

Finished Wall 8" Max. - (203mm)-Spacer Combustible Mantel 18" Mir. (457mm) Non-combustible Wall Covering Fireplace Opening RD-4300A Canadian Installation Figure 48 8" (203mm) Finish Wall Spacer Combustible 18" Min. Mantel (457mm) 1 3/4" (44mm) 10" Min. Non-combustible (254mm) Wall Covering Fireplace Opening RD-3300A & RD-3800A Models Only Canadian Installation Figure 49



Typical Installation
Figure 50 (Refer To Figure 48 For Canada)

## HEARTH EXTENSIONS AND WALL SHIELDS

A hearth extension must be installed with all fire-places. It is to protect the floor in front of the fireplace from both radiant heat and sparks. For Models RD-3300A and RD-3800A the hearth extension must extend 8\* (203mm) beyond both sides of the fireplace opening and 16\* (406mm) beyond the front. For Model RD-4300A the hearth extension must extend 12\* (305mm) beyond both sides of the fireplace opening and 20\* (508mm) beyond the front. Use the metal hearth extension, Model HE-36, with these fireplaces or a 1/2\* minimum thickness of a durable non-combustible material with an equal or greater insulating value than K=.84 BTU-in/FT.2-HR-F° or a thermal resistance that equals or exceeds R=1.19 HR-F°-FT.2\*/BTU-In.

**Note:** Any non-combustible material whose K value is less than .84 or whose R value is more than 1.19 is acceptable.

If the fireplace is installed on a combustible floor, use the metal safety strips (provided) on the floor extending half under the fireplace and half under the hearth extension.

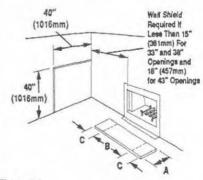


Figure 51

### HEARTH EXTENSION DIMENSIONS

Opening Width	33"	38"	43"
A	16"	16"	20°
	(406mm)	(406mm)	(508mm)
В	33"	38*	43*
	(838mm)	(965mm)	(1092mm)
С	8*	8"	12*
	(203mm)	(203mm)	(305mm)

### METHODS OF DETERMINING HEARTH EXTENSION EQUIVALENTS

To determine the thickness required for any material when either the K or R values are known:

$$T_M \text{ (inches)} = \frac{K_M}{.84} \times T_R$$
  
or  $T_M = \frac{1.19}{R_M} \times T_R$ 

Tu = Thickness of material in inches

K<sub>w</sub> = K value of material

R<sub>M</sub> = R value of material

T<sub>8</sub> = Minimum thickness required

### ALTERNATE HEARTH EXTENSION MATERIALS

MATERIAL	K	R	1/2"
Millboard	0.84	1.19	1/2"
Common Brick	5.00	0.20	3"
Marble	11.0	.091	6 1/2"
Micore CV230 (U.S. Gypsum Corp.)	0.43	2.33	1/4"
Ceraform 126 (Johns-Manville)	0.27	3.70	1/4"

#### EXAMPLE:

Common brick is to be used on a RD-3800A fireplace. How thick must the hearth extension be?

Using the formula:

Using K

$$T_M \text{ (Inches)} = \frac{K_M}{.84} \times T_R$$

$$T_M \text{ (inches)} = \frac{5.00^* \times 1/2^{***}}{.84}$$

Answer using K

= 5.95 x 1/2" = 3 inches

Using R

$$T_{M}$$
 (inches) =  $\frac{1.19}{R_{M}} \times T_{R}$ 

$$T_{M}$$
 (inches) =  $\frac{1.19}{.2^*} \times 1/2^{***}$ 

Answer using R

= 5.94 x 1/2" = 3 inches

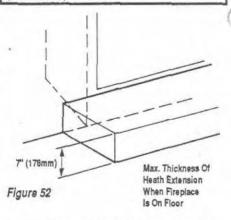
\*value taken from chart

\*\*Min. thickness per requirements

These materials can then be covered with a decorative non-combustible material.

WARNING: THE CRACK BETWEEN THE FIRE-PLACE AND THE HEARTH EXTENSION MUST BE SEALED WITH A NON-COMBUSTIBLE MA-TERIAL.

WARNING: FIREPLACE MUST BE RAISED IF HEIGHT OF HEARTH EXTENSION EXCEEDS 7" (178MM) ABOVE BOTTOM OF FIREPLACE (FIGURE 52).



Secure the hearth extension to the floor to prevent possible shifting.

If a continuous perpendicular side wall is closer than 15" (381mm) to the fireplace opening on the RD-3300A or RD-3800A and 18" (457mm) to the fireplace opening on the RD-4300A a wall shield is required. Use metal wall shield, Model WS40, manufactured by Superior Fireplace Company or construct a 40" x 40" x 1/2" (1016mm x 1016mm x 13mm) wall shield made of millboard or a durable non-combustible material with equal or greater insulating value than K=.84 BTU-IN./SQ.FT.-HR.-°F. In no case shall a continuous perpendicular side wall be closer to the fireplace opening than 8" (203mm).

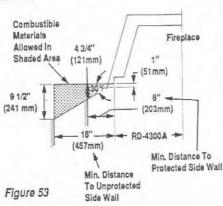
If fireplace is installed diagonally across a 90° corner no wall shields are required.

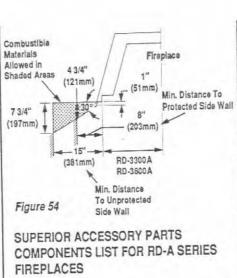
### FINISH TO YOUR TASTE

There are a wide variety of "finished looks" for your RD-A Series from formal wall decor with elaborate mantels to rustic wood paneling to warm brick or marble facings.

Only non-combustible materials like stone, tile, brick, etc. may overlap the black front facing; but be sure not to interfere with the installation and operation of glass doors. Seal all joints between the black facing and wall surrounds to prevent air intrusion. Use non-combustible caulking material only to seal the black metal facing to the surround material on the finished wall.

Combustible materials may project beyond the sides of the fireplace opening as long as they are kept within the shaded areas illustrated in *Figures 53* and 54.

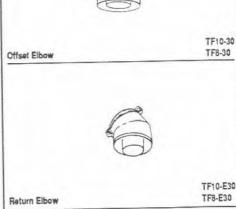


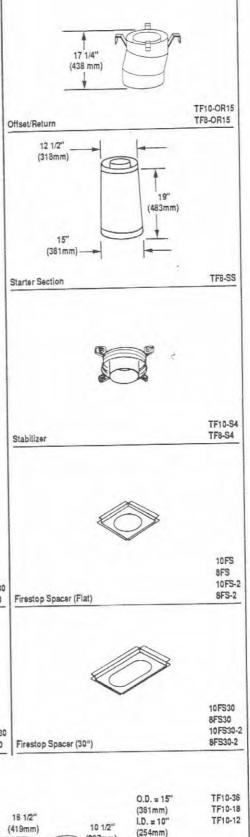


The following accessory parts and components are to be used only with your Superior fireplace system. Separate installation instructions are packaged with all combustion air kits, glass doors and chimney terminations.

If you encounter any problems or have questions concerning the installation or application of this system, please contact your distributor or:

### SUPERIOR FIREPLACE COMPANY 4325 Artesia Ave. Fullerton, California 92633 714-521-7302





TF8-48

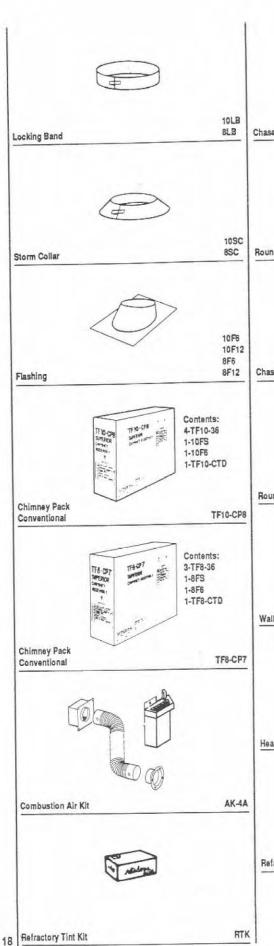
TER-36

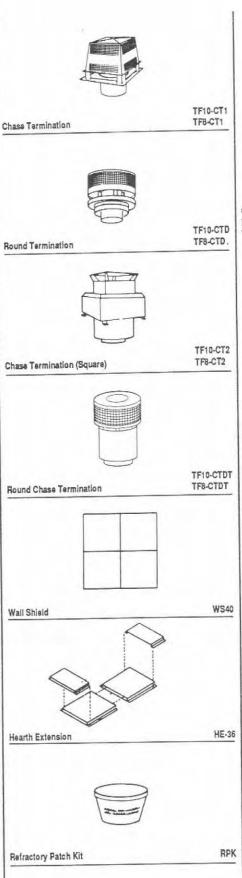
TF8-18 TF8-12

O.D. = 12 1/2"

(317mm) I.D. = 8"

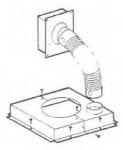
(203mm)





Chimney Collar facing materials. "ALL-GLASS"TM applying facing materials.

Note: W.H.L Listed Only. Not A U.L. Listed installation.



Enclosure Kit

TF10-CCEK TF8-CCEK

Note: The C Series glass doors overlap the frame around the fireplace opening. Allow 1/2" clearance at each side when applying



33C-PB 38C-PB 43C-PB

38BF

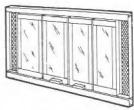
Note: The Bi-Fold Series glass doors overlap the frame around the fireplace. Allow 1/16" clearance; top, bottom and each side when



43BF 38BFT 43BFT 33GBF-PB 38BF-PB 43BF-PB 33GBF-SPB 38BF-SPB 43BF-SPB 33GBFT-SPB 38BFT-SPB 43BFT-SPB 33GBF-ABR 38BF-ABR 43BF-ABR

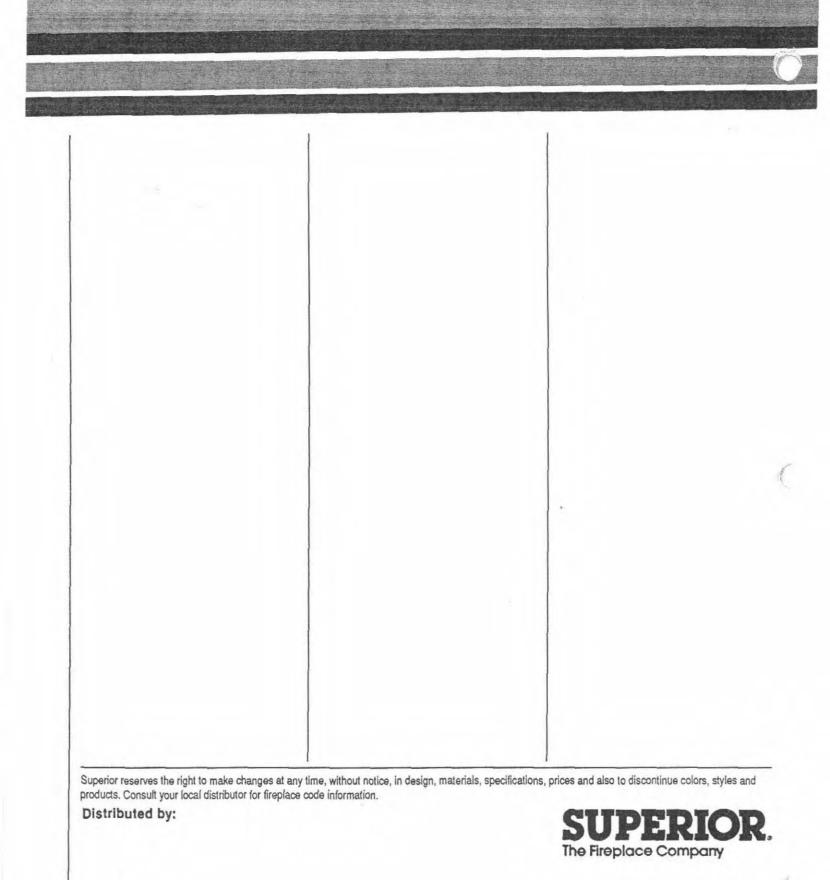
Bi-Fold "ALL-GLASS"™ Doors

Note: The Bi-Fold Series glass doors overlap the trame around the fireplace. Allow 1/16" clearance; top, bottom and sides when applying facing materials.



33BF-AB 38BF-AB 43BF-AB

Bi-Fold (Traditional)



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Plants in Fullerton, CA, Union City, TN